

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled)
2. (Previously Presented) The method of claim 31, further comprising the computer generating one or more data sets associated with one or more parameters of a plurality of appliances having geometries selected to progressively reposition the teeth, wherein the appliances comprise polymeric shells having cavities and wherein the cavities of successive shells have different geometries shaped to receive and resiliently reposition teeth from one arrangement to a successive arrangement.
3. (Previously Presented) The method of claim 2, wherein the plurality of appliances includes a sequence of configurations of braces, the braces including brackets and archwires.
4. (Previously Presented) The method of claim 2, wherein the plurality of appliances includes a sequence of polymeric shells manufactured by fitting polymeric sheets over positive models corresponding to the teeth of the new patient.
5. (Previously Presented) The method of claim 2, wherein the plurality of appliances includes a sequence of polymeric shells manufactured from digital models.  
~~models~~

6. (Previously Presented) The method of claim 37, wherein the similarity